



Three Phase Hybrid Inverter (HV) (10-50) kW

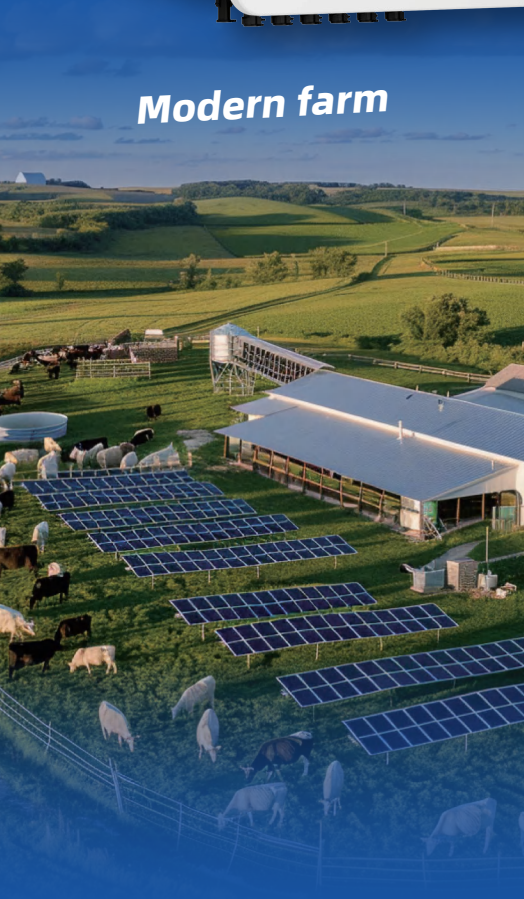
Smarter Power Better Life



Three Phase Hybrid Inverter

10-50kW

Modern farm



Rural school



Community hospital



More Powerful **200%**

Oversizing PV system

PV input power up to 60kW

More Reliable **55kW**

Max. output power for backup load during On-Grid mode

Supports **30 pcs**

Supports 30 pcs in parallel with Master-Slave control, delivering up to 1500kW

More Flexible **6 PV Strings**

Divide the solar panels into up to six zones

Adapts to complex installation scenarios

More Extensive **100%**

Ensures all the energy supplied is green energy

Support fast Ac chargers and SG-ready heat pumps

More Intelligent **4 ms**

Switching time with whole home backup

100% EPS output power (off grid mode)

Three Phase Hybrid Inverter (HV) (10-20) kW

Type Designation	SiH-10kW-TH-PRO		SiH-15kW-TH	SiH-20kW-TH
PV (input)				
Max. recommended PV array power [Wp]	20000		30000	40000
Max. PV input voltage [V]			1000	
Rated PV input voltage [V]			650	
Start-up input voltage [V]			150	
MPPT voltage range [V]			150-950	
No. of MPPT/Strings per MPPT	3 (2/1/1)			3 (2/2/1)
Max. PV input current [A]	64 (32/16/16)			80 (32/32/16)
Max. DC short-circuit current [A]	80 (40/20/20)			100 (40/40/20)
Battery (input/output)				
Battery type			Li-ion battery	
Battery voltage range [V]			100-800	
Max. charge/discharge current* [A]			50/50	
Max. charge/discharge power [W]	15000/10000		30000/15000	30000/20000
Grid (input/output)				
Max. AC power from grid			43000 W / 43000 VA	
Rated AC output power [VA]	10000		15000	20000
Max. AC output power [VA]	10000		15000	20000
Max. AC output current [A]	15.2		22.8	30.3
Rated voltage [V]			3 / N / PE, 220 / 380; 230 / 400; 240 / 415	
AC voltage range [V]			270-480	
Rated grid frequency [Hz]			50/60	
Grid frequency range [Hz]			45-55 / 55-65	
Total harmonic distortion (THDi, rated power) [%]			<3	
Power factor at rated power / Adjustable power factor			> 0.99 / 0.8 leading to 0.8 lagging	
Backup (output)				
Rated voltage [V]			3 / N / PE, 220 ; 230 ; 240	
Frequency range [Hz]			50 / 60	
Total harmonic distortion (THDv, rated power, Linear load) [%]			≤2	
Backup switching time [ms]			≤4	
Rated output power (off-grid mode) [VA]	10000		15000	20000
Peak output power (off-grid mode)**	16800 W / 168000 VA, 10s		25500 W / 25500 VA, 10s	32000 W / 32000 VA, 10s
Max. output power (on-grid mode)			43000 W / 43000 VA	
Max. output current (on-grid mode) [A]			3*63	
Efficiency				
Max. efficiency/European efficiency [%]	98.00/97.50		98.10/97.60	
Protection & Function				
Parallel***			Master-slave mode	
Surge protection			Type II , DC and AC	
Overvoltage category			II DC and III AC	
Protective class			Class I	
Grid monitoring			Yes	
DC reverse polarity protection			Yes	
Battery input reverse polarity protection			Yes	
Insulation monitoring			Yes	
AC short-circuit protection			Yes	
Residual current protection			Yes	
DC switch (PV)			Yes	
Over-heat protection			Yes	
AFCI			OPT	
General Data				
Topology (PV/battery)			Transformerless	
Degree of protection			IP66	
Dimensions (W*H*D) [mm]			615 * 465 * 255	
Weight [kg]	35		36.5	
Mounting method			Wall-mounting bracket	
Operating ambient temperature range [°C]			-25-60 (Derating above 45)	
Allowable relative humidity range (Non-condensing) [%]			0-100	
Cooling method			Natural convection	
Noise (Typical)			35 dB (A)	
Max. operating altitude [m]			2000	
Display			LED	
Communication			2*RS485/2*CAN/WLAN	
DI/DO			4*DI/2*DO/DRM0	
DC connection type			MC4 (PV, Max. 6 mm²)	
Battery connection type			Plug and play connector (Battery, Max.10mm²)	
AC connection type			OT Terminals (Grid / Backup, Max.26mm²)	

* Depending on the connected battery

** Can be reached only if PV and battery power is sufficient

*** Detail refer to inverters parallel configuration in User Manual

Three Phase Hybrid Inverter (HV) (25-50) kW

Type Designation	SiH-25kW-TH		SiH-30kW-TH		SiH-40kW-TH		SiH-50kW-TH	
PV (input)								
Max. recommended PV array power [Wp]	50000		60000					
Max. PV input voltage [V]			1000					
Rated PV input voltage [V]			650					
Start-up input voltage [V]			150					
MPPT voltage range [V]			150-950					
No. of MPPT/Strings per MPPT			3 (2/2/2)					
Max. PV input current [A]			96 (32 / 32 / 32)					
Max. DC short-circuit current [A]			120 (40 / 40 / 40)					
Battery (input/output)								
Battery type	Li-ion battery							
Battery voltage range [V]	100-800							
Max. charge/discharge current* [A]			60/60				65/65	
Max. charge/discharge power [W]	30000 / 25000		30000 / 30000		40000 / 40000		50000 / 50000	
Grid (input/output)								
Max. AC power from grid	55000 W / 55000 VA							
Rated AC output power [VA]	25000		30000		40000		50000	
Max. AC output power [VA]	25000		30000		40000		50000	
Max. AC output current [A]	37.9		45.5		60.6		75.8	
Rated voltage [V]	3 / N / PE, 220 / 380; 230 / 400; 240 / 415							
AC voltage range [V]	270-480							
Rated grid frequency [Hz]	50/60							
Grid frequency range [Hz]	45-55 / 55-65							
Total harmonic distortion (THDi, rated power) [%]	<3							
Power factor at rated power / Adjustable power factor	> 0.99 / 0.8 leading to 0.8 lagging							
Backup (output)								
Rated voltage [V]	3 / N / PE, 220 ; 230 ; 240							
Frequency range [Hz]	50 / 60							
Total harmonic distortion (THDv, rated power, Linear load) [%]	≤2							
Backup switching time [ms]	≤4							
Rated output power (off-grid mode) [VA]	25000		30000		40000		50000	
Peak output power (off-grid mode)**	36500 W / 36500 VA, 10s		45000 W / 45000 VA, 10s		60000 W / 60000 VA, 10s		70000 W / 70000 VA, 10s	
Max. output power (on-grid mode)	55000 W / 55000 VA							
Max. output current (on-grid mode) [A]	3*80							
Efficiency								
Max. efficiency/European efficiency [%]	98.20 / 97.80				98.20 / 97.90			
Protection & Function								
Parallel***	Master-slave mode							
Surge protection	Type II , DC and AC							
Overvoltage category	II DC and III AC							
Protective class	Class I							
Grid monitoring	Yes							
DC reverse polarity protection	Yes							
Battery input reverse polarity protection	Yes							
Insulation monitoring	Yes							
AC short-circuit protection	Yes							
Residual current protection	Yes							
DC switch (PV)	Yes							
Over-heat protection	Yes							
AFCI	OPT							
General Data								
Topology (PV/battery)	Transformerless							
Degree of protection	IP66							
Dimensions (W*H*D) [mm]	615 * 465 * 255							
Weight [kg]	38				39.5		39.8	
Mounting method	Wall-mounting bracket							
Operating ambient temperature range [°C]	-25-60 (Derating above 45)							
Allowable relative humidity range (Non-condensing) [%]	0-100							
Cooling method	Fan cooling							
Noise (Typical)	55 dB (A)				60 dB (A)			
Max. operating altitude [m]	2000							
Display	LED							
Communication	2*RS485/2*CAN/WLAN							
DI/DO	4*DI/2*DO/DRM0							
DC connection type	MC4 (PV, Max. 6 mm²)							
Battery connection type	Plug and play connector (Battery, Max.10mm²)							
AC connection type	OT Terminals (Grid / Backup, Max.26mm²)							

* Depending on the connected battery
** Can be reached only if PV and battery power is sufficient
*** Detail refer to inverters parallel configuration in User Manual

Full Range From Power Generation,
Transmission, Distribution To

Energy Storage

32 years

With 32 years of experience,
specialized in equipment manufacturing
and engineering services

Public Co.

Founded in 1993
Stock listed in 2004 (SZSE002028)

US\$3.2 Billion

2024 Turnover

1400+

1411 Qualified engineers are
the driving force behind the
exceptional R&D progress

TOP 3

Sieyuan思源电气
Electrical Equip. Manufacturer

22

22 Manufacturing bases

100+

With 10,000+ employees
in 100+ countries and regions

1,000kV

Full range product: 10kV -1,000kV

esGrid
Grid-level energy storage

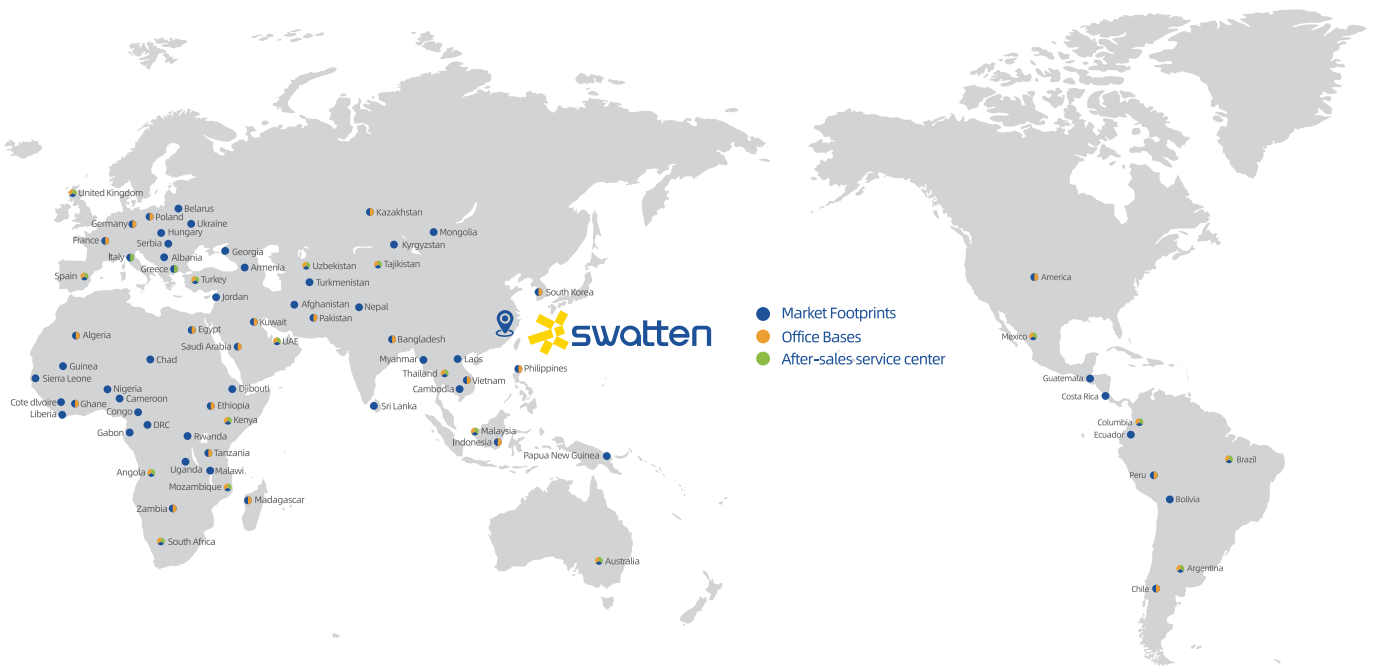
Sieyuan Utility Scale BESS

 **swatten**
Powered by Sieyuan

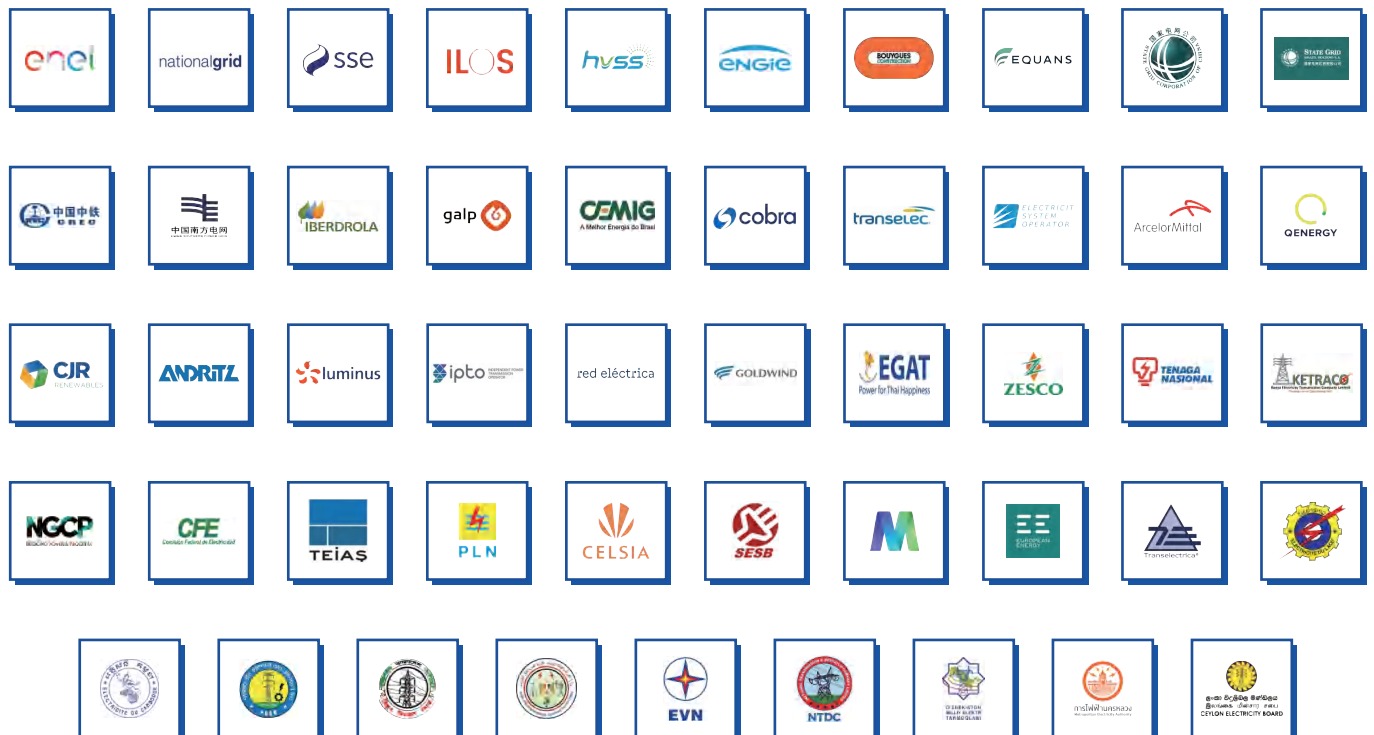
C&I and Residential BESS



Global Marketing & Service Layout



Our Global Clients





Swatten Europe Case



Swatten APAC Case



Compatible Battery Brand

* For detailed list please contact our technical team



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